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MEMOIR concerning The GEOGRAPHY
of the
COUNTRIES situated on RIO DE LA PLATA,

and on the
RIVERS FALLING INTO IT:

by

Palrymple,

1807.

Printed by BALLINTINE & LAW, N^o. 9, Duke-street,
Adelphi, Strand. 1807.

And Sold by F. WINGRAVE, in the Strand; Successor to Mr. Nourse.

DIRECTIONS
for
The MOUTH of RIO DE LA PLATA,
by the
Honourable *Duncombe Pleydell Bouvierie*,
Captain of H. M. Ship Medusa ;
with
The ASTRONOMICAL OBSERVATIONS of
Capt. *Beaufort*, of H. M. Ship *Woolwich*,
and
Capt. *Heywood*, of H. M. Ship *Polyphemus*,
OBSERVATIONS by Dr. *GORDON*, *Physician to the Army*,
ABSTRACT of Capt. *Heywood's* Journal of H. M. Ship *Polyphemus*,
and
A Spanish Register of Winds and Weather at *Buenos Ayres*
in 1805.

Published by

Paltrymple,

1808.

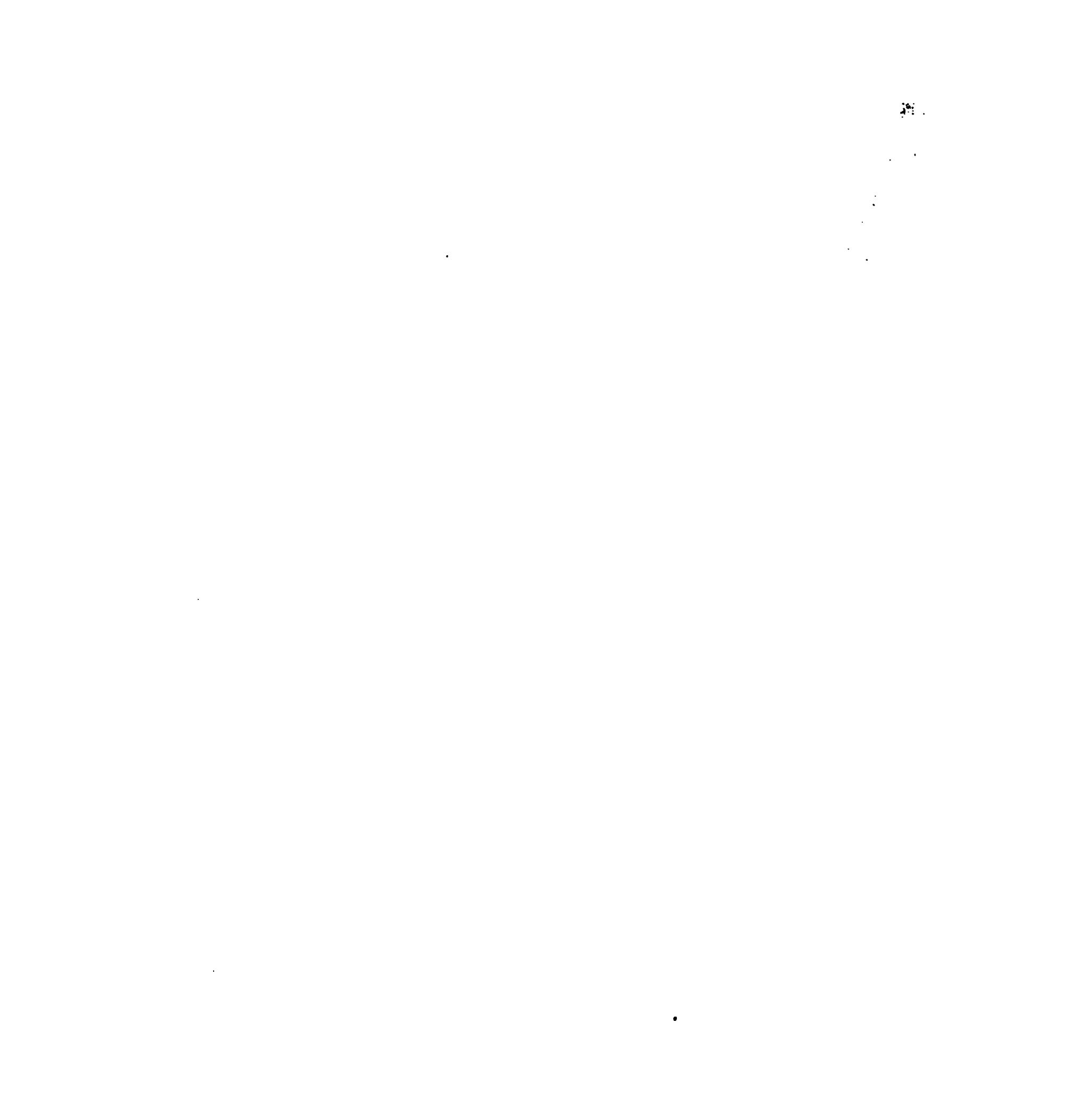
LONDON:

Printed by **BALLINTINE & LAW**, N^o. 9, Duke-street, Adelphi, Strand. 1808.

And Sold by **F. WINGRAVE**, in the Strand; Successor to **Mr. NOURSE**.



In full Confidence
that
The distinguished Merits
of
A SON,
must afford the highest Satisfaction
to
A FATHER,
This *excellent Description of the Mouth*
of
RIO DE LA PLATA,
by
The Honourable *Duncombe Pleydell Bouverie,*
Captain of His Majesty's Ship Medusa,
is inscribed to
Jacob Pleydell-Bouverie, Earl of Radnor,
by
7th May, 1807. *Paltrymple.*



(2)

A M E M O I R concerning the G E O G R A P H Y
of the Countries situated on the Rio de la Plata,
and the many Rivers falling into it.

8th June, 1807.

T H E Materials consulted for this purpose are:

N° 1. The *Spanish Chart* of *Rio de la Plata*, published by the *Spanish Depot*, said to be from *Malespina's Voyage*; The English Navigators represent the *Coast* as very *exactly delineated*, and there can be no doubt of the precision of the Spanish Astronomical Observations at *Mte. Video*: The *Soundings* in this *Chart* have not been found equally consonant to observation: but Those of English Navigators do not agree with each other: *Soundings*, out of sight of *Land*, cannot be exactly ascertained by any way but the *Quincunx*.

9th June.

N° 2. There is in the *Hydrographical Office, ADMIRALTY*, a *Map* of the *Jesuit Missions*, by *F. Joseph Quiroga*, of the *Society of Jesus*, in the *Province of Paraguay*, in 1749; and published at *Rome* in 1753. On one *Margin* of this *Map*, is an *Account* of several *Indian Nations*; on the other *Margin*, a *Table* of *Latitudes* and *Longitudes*: The *West Side*

(2)

Side of Ferro was the 1st *Meridian* in this *Map* ;
It was appointed the *French First Meridian* by
Law, and used by *D'Anville*, in all his *Foreign
Maps*. *Quiroga's Map* places *M^{te}. Video* in
 $523^{\circ}. 24' E = 56^{\circ}. 36' W$ Longitude from *West
Side of Ferro*, determined by *Feuillé* to be in
 $19^{\circ}. 51'. 33'' W$ from *Paris*, or $17^{\circ}. 31'. 33'' W$
from *Greenwich* ;

M^{te}. Video, by *Quiroga*, therefore will be in W from *Greenwich*.
 $54^{\circ}. 7'. 33''$
But being, by the recent Spanish Observa-
tions in $49^{\circ}. 57'. 15''$ from *Cadiz*,
which being $6. 17. 0 W$ fr. *Greenwich*, } = $56. 14. 15$
By *Quiroga*, too far E . 2. 6. 42

It is remarkable, that *Juan Texeira de Albornoz*,
in his *Map* of 1679, had abated $1^{\circ}. 30'$, in the
Longitude from *Sⁿ. Antonio* to *Cape S. Mary*, from
an antecedent *Chart* in 1629, so that the ancient
Charts were less defective, than the *subsequent*.

The Difference of *Longitude* between *M^{te}. Video* and *Buenos Ayres*.

	Difference from Spanish Observations.
The Spanish Observations by Chronometer	$2^{\circ}. 10'. 30'' W$
<i>Quiroga's Longitudes</i> 1749 2. 21. 0 - 10'. 30'' too far W
<i>Dobrizhoffer</i> . . 1784 Map 1. 17. 0 - 53. 30 too far E Long. in Book 1. 43. 0 - 27. 30 too far E
<i>Juan de la Cruz Caño's Map</i> , 1775 2. 18. 0 - 7. 30 too far W
<i>Arrowsmith's Map</i> 1806 2. 7. 0 - 3. 30 too far E
<i>D'Anville's Map</i> 1733 1. 58. 0 - 12. 30 too far E
1748 2. 30. 0 - 19. 30 too far W

I think the *Table*, of *Latitudes* and *Longitudes*,
on the *Margin* of *Quiroga's Map*, merits some
confidence, because it is said " In this *Table*, the
" *Latitude*

“ *Latitude and Longitude is not marked*, of the
“ *Towns*, newly founded in the Country of the
“ *Tobatinas, Minuanes, Mocovies, and Abipones*,
“ for the *necessary Observations* have *not* been
“ *made in them*,” which implies that the *necessary*
“ *Observations, had* been *made* at those *Places*,
whose *Latitudes* and *Longitudes* are given, on the
Margin of the Map: although there is no in-
timation *when*, by *whom*, or *how* those *Latitudes*
and *Longitudes* were obtained; but it may be in-
ferred, from *Dobrizhoffer*, that those Positions were
ascertained by the *Observations* of *Quiroga* him-
self, whom he represents to have been an *excellent*
Mathematician, and says, the Places which he had
himself observed were to be depended upon:
Dobrizhoffer seems to have given the *Latitudes*
and *Longitudes* of *Buenos Ayres, Corrientes* and
Assumption from *Quiroga*, for they exactly agree,
as they do in the Latitude *S^a. Fé*, of which, The
Longitude is not given, by either; but He not only
differs in the *Longitude* of *M^{te}. Video*, but he
differs also 6' in the *Latitude*, making it $34^{\circ} 48'$ S,
whereas *Quiroga's* Latitude $34^{\circ} 55'$ S is only $12''$
more than $34^{\circ} 54' 48''$ S determined by the
Astronomical Observations of the *Spaniards*; which
may be considered as the same.

By the Foregoing Comparison it appears, that
Quiroga's Map, makes the difference of *Longitude*,
between *M^{te}. Video* and *Buenos Ayres* $10' 30''$
more than the *Spaniards* do by *Chronometer*, and,
consequently, that, if *Quiroga's* Longitudes are
reckoned

reckoned from *Buenos Ayres*, instead of *Mte. Video*, they will be 10'. 30" less, from Greenwich, by the former than by the latter.

N° 3. Another Spanish Map, of considerable importance, is inserted in P. *Lozano's* History of *Chaco*; it contains much detail, but the *Latitudes* and *Longitudes* are very incorrect.

N° 4. The Map, in *Dobrizhoffer*, may be of use in the detail of some of the Rivers, but he calls "a *Geometrician* a *Rara Avis*," from whence we may infer he was not one, and his *Map* does not agree, with the *Latitudes* and *Longitudes*, which he has given in his Book; and consequently can be of little use in ascertaining *Positions*.

N° 5. The Great Map of *South America*, by *Juan de la Cruz Caño y Olmedilla*, 1775, is of much value for the detail; but There is no reason to believe, it was determined by Astronomical Observations in this Quarter, and the Modern Experience proves it, in many places, to be very erroneous; especially in the Coast, to the Southward of the *Rio de la Plata*, although we have scarcely any thing else for the interiour: It has been copied and published by Mr. *Faden*.^a There is an Impression of the Original in the Secretary of State's Office, and Another

^a I am informed Mr. *Faden* had not a Copy of the *Original*, but only an *oil-paper tracing*. It is not therefore to be wondered, the English Copy should not exactly agree with the Spanish *Original*.

Another in my Possession, sent me most liberally from *Spain*, with the concurrence of the Government, at a time when it was considered as a State Paper; and therefore I refused to make it instrumental in facilitating *Hostile Operations*.

N° 6. Is the Map, published in 1806 by *Arrowsmith*, from a Spanish MS, made by the Commissioners, appointed to settle the Boundary, between the Spaniards and Portuguese; I have no doubt it very accurately describes the Eastern Boundary; but I question, whether the Western parts are determined with equal precision; for I saw the Original MS at the House of Sir Joseph Banks, and took notice that the Mouths of the *Rio de la Plata*, or more properly of the River *Parana* where it falls into the *Rio de la Plata*, were different on the Maps of different Scales: and I find it does not agree with the detailed description of *P. Lozano*.

N° 7. Is a Tracing of Part of the *Original Survey* on a larger Scale.

N° 8. } 9. } Are from M. *D'Anville*, who, in 1733, published a Map that first gave the World a tolerable Idea of this part of our Globe; It was published in the 21st Vol. of the *Lettres edifiantes et curieuses*, and accompanied an account of *Paraguay*, as It then was. M. *D'Anville* gave a Memoir explanatory of the Map, which I intend to reprint with a Translation; unless I should learn, that a compleat Collection of M. *D'Anville's* Works is in serious contemplation of some other Person.

In 1748 M. *D'Anville* published his Great Map of *South America*, in three sheets, and gave two

Letters, elucidating its construction, in the *Journal des Scavans* 1754. These I also intend to reprint.

In 1760 M. *D'Anville* published another *Map of Paraguay, &c.* said to be taken from his *Map of South America*, of which it seems to be an exact copy; I believe it was intended to accompany the French Translation of *Muratori*: It is very different from the Italian Edition of *Muratori*, which is a much inferior performance: M. *D'Anville* having had the advantage, in those He published, of the MSS of The Jesuits.

N° 10. Is a Chart, of *Rio de la Plata*, published, in 1717, under the auspices of the *South Sea Company*; It has no Scale of *Latitude* or *Longitude*, but it contains the *Soundings* all the way up to *Sta. Fé*, which I never saw any-where else: It also contains a *Particular Plan* of the *Bay of Castillos*, on the *East Coast* to the *Northward* of *Cape S^a. Mary*: This Chart was published by *Richard Mount*, *Tower-Hill*; but the *Plate* no longer exists: nor even the memory that such a *Chart* ever had been published.

N° 11. Is a Chart of *Rio de la Plata*, obviously originally *Spanish*, but engraved in *England*; It has no *Title*, but in a *Compartment* is a Plan of *Mal-donado*, taken on board the *S^t. Michael*, *Capt. Charles Burnham*, 1728, by *W. S.*

N° 12. A Spanish *Map*, of the *Province* and *Coast* of *Buenos Ayres*, by *Don Juan de la Cruz*.

I know of no other Maps of this Part worth Notice.

Margenville's Map,
1733.

D'Anville's Map,
1748.

	Longitude S ^o from Latitude. Video.	Reduced to Greenwich W Longitude.	S ^o Latitude.	W Longitude from Mte. Video.	Reduced to Greenwich W Longitude.
Mte. Video . .	34°. 5' 0'	56°. 14'	34°. 45' S	0°. 0'	56°. 14'
Buenos Ayres . .	34. 3 58 W	58. 12	34. 39	2. 30. 0" W	58. 44
Colonia (de Sacr ^o) . .	34. 2 15	57. 29	34. 17. 30"	1. 50	58. 4
S ^{ta} . Fé . . .	31. 4 43	59. 57	31. 50	4. 50	61. 4
Yapeyú . . .	29. 3 27 E	55. 47	29. 45	0. 17	56. 31
Cruz . . .	29. 1 45	55. 29	29. 28	0. 7. 30	56. 21. 30"
S. Borja . . .	28. 4 20	54. 54	29. 5	0. 35. E	55. 39
S. Thomé . . .	28. 3 20	54. 54	28. 58	0. 34	55. 40
S ^o Miguel . . .	28. 2 50	53. 24	28. 35	2. 30	53. 44
S. Lorenzo . . .	28. 1 47	53. 27	28. 40	2. 17	53. 57
S. Juan . . .	28. 1 3	53. 11	28. 30	2. 42	53. 32
S. Luis . . .	28. 1 31	53. 43	28. 43	1. 55	54. 19
S ^{ta} . Angel . . .	28. 1 2	53. 12	28. 15	2. 45	53. 29
S. Nicolas . . .	28. 1 16	53. 58	28. 30	1. 35	54. 39
Concepcion . . .	27. 1 46	54. 28	28. 29	1. 5	55. 9
Apostoles . . .	27. 1 32	54. 42	28. 28	0. 45	55. 29
S ^{ta} . Maria . . .	27. 1 7	54. 7	28. 20	1. 23	54. 51
S. Xavier . . .	27. 1 18	53. 56	28. 13	1. 32	54. 42
Martires . . .	27. 1 6	54. 8	28. 12	1. 15	54. 59
S. Carlos . . .	27. 1 7	55. 7	28. 25	0. 16	55. 58
Corrientes . . .	27. 1 58 W	58. 12	27. 55	3. 15 W	59. 29
S. Joseph . . .	27. 1 16 E	54. 58	28. 20	0. 30 E	55. 44
Candelaria . . .	27. 1 14	55. 0	28. 5	0. 25	55. 49
S ^{ta} . Anna . . .	27. 1 33	54. 41	28. 1	0. 45	55. 29
Loreto . . .	27. 1 33	54. 41	27. 50	0. 47	55. 27
S. Ygn ^o miri . .	27. 1 44	54. 30	27. 45	1. 0	55. 14
Itapua . . .	27. 1 11	55. 3	27. 50	0. 22	55. 52
Corpus . . .	27. 1 14	54. 0	27. 29	1. 13	55. 1
Santiago . . .	27. 1 W	56. 15	28. 5	0. 50 W	57. 4
Trinidad . . .	27. 1 34 E	54. 40	27. 40	0. 45 E	55. 29
S. Cosme . . .	27. 1 24	54. 50	28. 5	0. 33	55. 41
Jesus . . .	27. 1 30	54. 44	27. 29	0. 38	55. 36
S ^o Ygn ^o guaz ^u . .	26. 21 W	56. 35	27. 30	1. 2 W	57. 16
S ^{ta} . Rosa . . .	26. 1	56. 13	27. 34	0. 42	56. 56
N ^a . S ^a de Fé . .	26. 10	56. 24	27. 23	0. 52	57. 6
Assumpcion . . .	25. 54	57. 8	25. 32	1. 34	57. 48

Don Juan de la Cruz Caño's Map.

Spanish Original. Mr. Faden's Copy.

	Longitude from Mte. Video.	Reduced to Greenwich W Long.	S ^o Latitude.	Longitude from Mte. Video.	Reduced to Greenwich W Long.
Y	2°. 55'. 0" W	59°. 9'	29°. 0'	2°. 58' W	59°. 12'
3	0. 23. 30	56. 38	25. 10		
5	1. 13. 30 E	55. 1	24. 0	1. 20 E	54. 54
3	7. 18. 30 W	63. 32	18. 20	7. 13 W	63. 27
5	2. 10. 30	58. 25	16. 25	2. 10	58. 24
5	4. 15. 30	60. 90	15. 55	4. 13	60. 27
1	2. 59. 30	59. 14	19. 8	2. 55	59. 9
5	0. 30. 30	56. 45	15. 44	0. 27	56. 41

Paraguay, published at Vienna, 8°. 1784,

DIRECTIONS for the *mouth* of RIO DE LA PLATA,

By the Hon. *Duncombe Pleydell Bouverie*,

Captain of His Majesty's Ship *Medusa*.

IT has been generally believed that *fogs* were *frequent*, and indeed *constant*, but during the experience of a year, from September 1806 to the same month in the following year, I did not find that *thick weather* was at all frequent; *Hazy* it often was. The *weather* is remarkably *fine*, and the *climate* in the *highest degree healthy*. The *prevailing winds* are *Westerly* in the *winter*: and *NEasterly* in the *summer months*, blowing *strong* mostly in the *afternoons*, with *clear weather overhead* and *hazy* in the *horizon*. *SE* winds are not *common*, and generally bring *bad weather*. A *SW*, or *Southerly*, is always followed by *fine weather*, and is usually succeeded by an *Easterly* wind *after a short calm*. Should it be *foggy*, the *approach* to the *River* *cannot* be reckoned *dangerous*, if constant attention is paid to the *Lead* and the following directions.

I know of *no part* of the *River*, or *near it*, where there is danger of getting *on shoar* with proper attention to the *lead*, except that you must *not depend* upon *it altogether* in standing towards *Lobos* in the night.

Cape St. Mary is a *low point*, with *rocks* all about it: The *direction* of the *Coast*, to the *West* of it, becomes

more westerly, than at any other part North of the Cape: about 6 miles North of it, is a house with a row of trees, just to the North of the house, probably, a fence of high *Prickly Pear bushes*, which is very remarkable. About a mile South of the house, is a *bluff Point*, with a few rocks, at the foot of it, which is remarkable, as being different from the rest of the Coast, the general character of which, is a *sandy beach*; One cannot fail of knowing the Cape by these marks, if you run down the Coast near it: if you are at any distance off, you will not perceive them. The water off *Cape St. Mary's* is shoaler than it is to the Northward of it. Off the Cape, in a SE direction, you have 8½ fathoms, at the distance of 4 or 5 miles; to the Northward, between it and *Palma*, you have 10 and 11 fathoms at a very little distance from the shoar. Ships, in general, make the land with North and NE winds; therefore, it is best to keep in the Cape's Latitude, or something to the Northward of it, till you get soundings, as the Current sets to the SW. It is better not to make the land North of the Cape, not that I believe there is any absolute danger, but the water in many places is *shoal a long way off the Land*, and would alarm any one not acquainted with that circumstance.

In Lat. 33°. 27' S, Long. 52°. 9' W, is a *shoal*, where we found only 9 fathoms water: I believe it is a *ridge running* in that parallel of Latitude, all the way to the shoar.

In

In Lat. 34° . S, is some *tolerably high Land*, on which is a *Spanish Fortress*, called *Fort Teresa*: It is a *square*, with *bastions* at the *Angles*, it has *three guns* in the *faces*, and *one* in the *flank*, and stands about a *mile* from the *Beach*. About 6 leagues NNE from *It* is a *mark* set up, as the *termination of the Spanish Territories*.

Being in the Latitude of *Cape St. Mary* and got ground, in 28 or 30 fathoms *fine sand and shells*, you may reckon yourself, about 20 leagues off *shoar*: With from 15 to 20 fathoms *sand and clay* mixed, you are *not far off the Land*. When you have not seen the *Land* before night, be sure to keep to the *Northward* of the *Cape* by your *dead reckoning*, to allow for the *Current*, which sets to the *Southward*: This is the case with the above mentioned general *North* and *NE* winds. With *South* and *SW* winds, the *Current* runs strong, the other way.

From the parallel of *Cape St. Mary* in the night time steer *SSW*, till you get into the Latitude of *Lobos*, which you will *know*, by having *soft mud*: and if in steaming this course you are set to the *Westward*, you will *deepen your water* to 20 fathoms: if to the *Southward*, you will continue in 16.

In the parallel of the *English Bank*, even so far to the *Eastward* as the *meridian* of *Cape St. Mary*, you have 12, 11, and 10 fathoms only, *sandy bottom*.

There

There is a *good passage* between *Lobos* and the *Main*. About a league to the Southward of *Lobos*, you have 18 to 22 fathoms *soft mud*: thence, running to the Southward, the Depth *decreases*.

By keeping in *not less* than 18, you ensure being to the *Southward* of *Lobos*.

From *Lobos*, you may run quite up to *Monte Video*, either by night or day, by making a due *West Course*; *first trying* the *Current*, to make *due allowance* for it.*

From *Lobos* to *Flores*, the course is N 86°.‡ W, 49 miles; and you will have, from 17 fathoms near *Lobos* to 7 fathoms near *Flores*: *Soft clay* is a *proof* of your *being in the channel*, which is a *general*, and *almost certain*, *guide* in every part of the *River*: and seems to be thus to be accounted for: that the *Current* of the *River*, which is often very strong, and strongest, of course, over the *shallowest* parts, washes the *particles of earth*, which float in the water, and are brought down with the stream, off the *shallow parts*, which are all of *hard sand*, and the *earthy particles*, of course, *subside in the deep water*, and where it is stillest, which is probably the reason why the *Harbour* of *Monte Video* is filling up so very rapidly.

Sand

* The *Currents* are so *irregular*, This will not always be possible. *D*

Sand mixed with *small stones* and *shells* is the *proof* of your being in the *parallel* of the *English Bank*: and *fine brown sand* with *mud*, or *clay*, is the *proof* of your being to the *Southward* of the *English Bank*.

Flores^a cannot be seen from a Frigate's deck more than 5 leagues: It consists of *two hummocks*, the *Southernmost* of which is 56 feet *above* the *surface* of the *water*: they are joined by a *low ground*, over which the *Sea* washes in *bad weather*. The *Island* extends itself in a *NEbE* and *SWbW* direction; and on either side you have *good anchorage* and *shelter*, according to the *wind*: Off the *North* end a *reef* stretches out in a *NW* direction. To the *SW* of the *South* part, the *Raisonnable* touched on a *rock*, and was *aground* on it for 10 minutes, about $\frac{1}{2}$ of a mile off; but I have *not* the *bearings*. It is, as well as *Lobos*, the *habitation* of *innumerable seals*, and *sea fowl*, who begin laying their eggs in *August*. When you are near *Flores*, the *depth* is the *same* to the *Northward*, as to the *Southward*, but the *bottom* is *firmer* to the *Northward*: *soft bottom*, as mentioned above, is the *proof* of your being in the *fair way*.

From between the *English bank* and *Flores*, make good a *WbN $\frac{1}{2}$ N* course 7 or 8 leagues till you are abreast of the *Harbour* of *Monte Video*: you may pass *Point Brava* in $4\frac{1}{2}$ or 5 fathoms, quite near the *Rocks*, if necessary. There is only 15 feet at *low water*, and

18 at

* Vide Capt. *Beaufort's Plan* of these *Islands*. *¶*

18 at *high water*, in the *Harbour*; but the bottom is *so very soft*, that *no danger* occurs to the ships, by lying *aground*: A *SSW wind*, which blows right into the *Harbour*, and causes a *good deal of sea*, always occasions the *water to rise a fathom*, or more.

In a long continuance of fine weather, the *tides* sometimes assume the appearance of *regularity*: but *this is not often the case*. They are governed entirely by the *winds*: The winds from the *Southward* cause the *water to run out* on the *North shoar* the strongest. *Fine weather* and *NW wind* make the *lowest water*. It is usual in *Monte Video Harbour* to have an anchor to the *SE*, and another to the *SW*, and to take *one* in abaft, from the *Northward*, for the *water forced in* by the *Southerly wind* sometimes *rushes out* with an *astonishing rapidity*; when the anchor to the *North* is of the greatest service.

If you have occasion to anchor near *Lobos*, you may do so, in *holding ground*, in 14 fathoms about 1' $\frac{1}{2}$ North of it.

The *west part of the Island* bearing SbW $\frac{3}{4}$ W
 The *extreme of the rocks* to the *Eastward* bearing SbE $\frac{3}{4}$ E

To

To Anchor in MALDONADO.

The Spanish Surveys of this Bay, lay down a sufficient depth of water for any Ship, between every part of the Island, and the Main, however it cannot be safely entered, but by small vessels, except from the Westward, and you must not go further in than to bring the NW Point of *Gorritti* to bear SSW $\frac{1}{2}$ W, or SWbS by compass, with 4 $\frac{1}{2}$ or 5 fathoms good strong clay. With Southerly winds, there is in the East passage a heavy swell, and the water, from the ground being uneven, breaks almost the whole way across it in bad weather: The *Diomede* passed through it to the anchorage, before its dangers were known, and had not less than 18 feet, but there are places where there is as little as 1 $\frac{1}{2}$ fathom and it is very irregular. There is a bed of rocks to the South of *Gorritti*: the marks for it are,

The Tower of Maldonado	North
and The outer part of Point del Este	ENE $\frac{1}{2}$ E

In the direct line of the entrance of the Bay, from the Westward, is a bed of rocks, where there are parts having only 3, and $\frac{1}{2}$ less than 3 fathoms. The Bearings taken on the rocks are,

NE Point of <i>Gorritti</i>	E $\frac{1}{2}$ S
NW Point of D ^o .	EbS $\frac{1}{2}$ S
SW Point of D ^o .	SEbS
Point <i>Bellona</i>	WbN $\frac{1}{2}$ N

The Hill of *Pan de Azucar* just within the extreme of Point *Bellona*.

In Mid Channel between these rocks and the Island is 6 $\frac{1}{2}$ and 7 fathoms: their distance from the Island is about

about $\frac{1}{2}$ of a mile. There is 7 fathoms *close* to them *all round* the Western side.

The *watering place* is on the *Main*, close by a *battery*: The *stream* loses itself in the *sand*, except when *swoln* by *heavy rains*, and you have to *roll* your casks about 60 or 80 yards over the *sand*, the *water* is *very good*.

In sailing in, to the *Southward* of the *English Bank*, I should advise keeping as far South as the parallel of $35^{\circ} 30' S.$, till you are above the *Bank* and *under* the *meridian* of *Monte Video*.

In sailing from *Monte Video* in the night, you need apprehend no danger steaming South *per Compass*, when, probably owing to the *stream* of the *River*, you will make good a true *South course*; you should *not* make any *Easting* till you are in a parallel of $35^{\circ} 30' S.$, or near it.

There is a *bank* of *hard sand*, to the WSW of the *English Bank*, on the *shoalest* part of which is *only* $2\frac{1}{2}$ fathoms, on this the *Spanish Frigate Archimedes* was lost in the year *within* four hours after her sailing from *Monte Video*, and *only* a *boat's crew* were *saved*. Its Latitude is $35^{\circ} 12' S.$, and the Mount bears from it, N $21^{\circ} 36' W.$, of the world.

N.B. This I got from Capt. Beaufort. D. P. B.

LATITUDES

* Capt. Bouterie's Chart lays down a *Bank* of $4\frac{1}{2}$ fathoms. in about $35^{\circ} 38' S.$, and another in about $35^{\circ} 42'$ with 5 fathoms. According to the Old Chart, published in 1717, under the auspices of the S^o Sea Company, The *English Bank* is marked with a long slip, extending to the Southward; so that It will not be prudent to sail in by night this way, till carefully examined. \mathcal{D}

LATITUDES and LONGITUDES.

Light-house of <i>Monte Video</i> ,	$34^{\circ} 52' 58''$ S	$56^{\circ} 5' 0''$ W	The Light-house
Town of D ^o .	34. 54. 48	56. 2. 15	stands 438 feet above
Point Brava	34. 55. 45	56. 0. 0	the level of the River.*
Flores	34. 57. 30	55. 44. 30	Variation of the
North Pt ^o of English Bank,	35. 8. 30	55. 44. 0	Compass off Cape St.
Island of Goritti	34. 56. 15	54. 50. 50	<i>Mary's</i> , $18^{\circ} 30'$ E.
Lobos	35. 1. 30	54. 45. 30	
Cape St. Mary's	34. 40. 30	54. 6. 0	
Great Castillos Rock	34. 22. 30	53. 33. 0	

As It is always desireable to have the Observations of different Persons to compare together, I shall here insert what I have received from two other highly esteemed Friends, Capt. *Peter Heywood* of H. M. Ship *Polyphemus*, and Capt. *Francis Beaufort* of H. M. Ship *Woolwich*: as both the Hon. Capt. *Bouverie* and Capt. *Heywood* give a decided preference in favour of Capt. *Beaufort*, I without hesitation, from their opinion, and my own conviction of his precision, shall adopt his determination (in whole numbers, rejecting *seconds* as *always precarious*, and of *no consequence*), viz.

Monte Video, Light-house, $34^{\circ} 53'$ S Lat.

56. 0 W Long. fr. *Greenwich*.

Capt. *P. Heywood*, in the *Abstract* of his *Journal* which he obligingly favoured me with, in a *Letter*, dated *Polyphemus, Portsmouth*, February 1808, says, "From "the *Castle of Cape Town*, which I consider to lye in " $18^{\circ} 32'$ E of *Greenwich*, the *two Chronometers* made

" to

* Capt. *Heywood* says 451 feet, Capt. *Beaufort* 445, by exact admeasurement; Capt. *Beaufort's*, which I have no doubt is *exact*, is nearly the *mean*.

" to *James Town, St. Helena*, $24^{\circ} 11' 0''$ W
 Cape . . $18^{\circ} 52' 0''$ E fr. *Greenwich*
 " places *St. Helena* . . $5^{\circ} 59' 0''$ W
 " and from *St. Helena* to } $50^{\circ} 34' 15''$ W
 Monte Video . . . } $56^{\circ} 18' 15''$ W

In the same Letter He says, " Thursday, 29th August, 1807—I accompanied Capt. *Beaufort*, to-day, up to the *Mount Video*, to observe for *Latitude* and *Longitude*; Capt. *B.* made its *Latitude* $34^{\circ} 58' 5''$ S, I observed it in $34^{\circ} 58' 12''$ S.* On the summit of this *Mount* is a *Building*, whose *Base* is *42 feet 6 inches* by *20 feet*, formerly used (as I believe) for a *Light-house*. The *Diameter* of the *Lantern* is *10 feet 6 inches*, and its elevation above the level of the *Sea* *451*. We had also some distances of \odot , which gave by Captain *Beaufort's* Observation $55^{\circ} 48' 15''$ W, and by mine $55^{\circ} 49' 15''$ W." Capt. *Heywood's* Letter afterwards says, " Capt. *Beaufort*, by the mean of several distances of \odot taken with a *Sextant*, places it (*Monte Video*) in $56^{\circ} 1' 18''$ W, and by some with a *Circle* of \odot $55^{\circ} 57' 18''$ W: The mean of all my *Lunar Distances*, on both sides, was $56^{\circ} 10' 15''$ W, and those taken by Mr. *Louthean*, the *Master* of the *Polyphemus*, $55^{\circ} 57' 41''$ W; The whole making a *Mean* of $56^{\circ} 1' 33''$ W."

Capt. *Heywood* says, " While we remained off *Monte Video*, the *Mean daily rate* of *Arnold's Chronometers* was . . N° 208 gaining $4^{\circ}, 5'$ } on *mean time*. N° 45 losing $4^{\circ}, 5'$

" Taking

* Capt. *Heywood* being $7''$ to the *Southward* of Capt. *Beaufort*, but this is too small to be considered as a difference; but by Capt. *Beaufort* the difference is only $3''\frac{1}{2}$ \mathcal{A}

" Taking my departure from the \leftrightarrow off *Monte Video*
 " in Longitude $56^{\circ}. 0'$ W from *Greenwich*, (allowing it
 " $1\frac{1}{2}$ mile to Eastward of *Monte Video*) the Rates
 " of the *Chronometers* each $4,5$ as above, I carried
 " on my Longitude all the way to *Spithead*, and at
 " *Cork* on 27th December 1807, 105 days since we
 " left *Monte Video*, they made the Longitude as follows,
 " N° 208, . . $8^{\circ}. 0'. 30''$ W, and
 " N° 45, . . $8. 16. 45$ W,
 " the Mean . $8. 8. 37$ W, by Sights taken
 " upon *Spike Island*."

In a Letter of 17th January, 1808, at *Spithead*,
 Capt. *Heywood* says, " *Arnold's* N° 208 and 45 are
 " above all value, and ought not to have been seperated,^a
 " because their rates are equal, though one + and the
 " other - ; and each is differently affected, by the heat
 " and cold ; so that though they may each on a passage
 " measure a distance widely different, the mean of them
 " is always very near the true Longitude. Using one
 " and the same rate for both since the 14th September,
 " they are $10'$ only apart, and we made the Longitude
 " at *St. Helen's* the day before yesterday (15th January,
 " or 123 days) $1^{\circ}. 10'$, which I take to be about $6'$ too
 " far to the Westward."

I must here, in Justice to Sir *Thomas B. Thompson*,
 Comptroller of the Navy, observe, that as soon as he
 was made acquainted with this circumstance, He sent

an

^a In consequence of an Order to send 208 on board H. M. Ship *Surveillante*.



an order to *Portsmouth* to prevent the separation of these *two Chronometers*, but unluckily the *Surveillante* was sailed. I must add, Sir *Thomas* has on all occasions shewn the same attention concerning Chronometers; and very properly suggests the expediency of all Officers, who have Chronometers, being required to keep a daily Register of them at Sea, to be sent to the Hydrographical Office on the Ship's return, when He would be enabled, by the Report made, to give the necessary Directions concerning the *Chronometers*, before they are removed out of the Ship.

I am now to give Capt. *Beaufort's* Observations, which he has obligingly sent me in detail.

“ In the Plan N° 1, of the *Coasts* adjacent to *Monte Video*, I have not explained the *Data* on which I assumed the *Latitude* and *Longitude* of the *Light-house*.—But, for fear that you should suppose them to have been more accurate, or more numerous, than they really were, I will here transcribe them.

“ By double Mer. Alt. with <i>water horizon</i> , Aug. 24, 1807,					
“ on the <i>Light-house</i> of <i>Monte Video</i>	34°. 52'. 57"				
“ D°. . . D°. . . D°. . . Aug. 29, 34. 53. 2					
	Mean .	34. 52. 59. 30			
“ D°. with <i>Quicksilver Horizon</i> , by Capt. <i>Heywood</i> , 34. 52. 56					
	Mean Latitude .	34. 52. 58			

“ Lunars

" Lunars for Longitude of *Monte Video*.

" Eastern Lunation, Aug. 29, with Sextant on shore,	
1 Set of 5 Observations	55°.48'.15"
" D°. . . D°.	55. 49. 15
	55. 48. 45
" Capt. Heywood D°. (his Sextant) . .	55. 47. 15
	55. 48. 15
	(should be 55. 48. 0)

" Western Lunation, Sept. 7, on board, reduced to	
<i>Light-house</i> , with Sextant, 1 Set 5 Observations, 56°. 7'. 14"	
" D°. . . D°. . . D°.	56. 12. 14
" D°. . . Sept. 9, D°.	56. 14. 22
" D°. . . D°. . . D°.	56. 11. 37
" D°. . . D°. . . D°.	56. 12. 52
" D°. . . D°. . . D°.	56. 19. 7
" D°. . . D°. . . D°.	56. 18. 7
" Mean of Western Lunation with Sextant .	56. 19. 50
" Mean of Eastern Lunation with Sextant .	55. 48. 15
" Mean of both Lunations . . .	56. 0. 35

" Western Lunation, 1 Set with <i>Troughton's Circle</i> ,	
observed on board, but reduced to <i>Light-house</i> ,	
Sept. 9	55°.55'.52"
" D°. . . D°. . . D°.	55. 56. 22
" D°. . . D°. . . D°.	55. 59. 22

" Mean of 3 Sets with Circle . .	55. 57. 12
" In meaning these 3 Sets by the Circle, with the	
above 10 Sets by the Sextant, I give the latter	56. 0. 35
double value, from having observations with	56. 0. 35
it on both sides	

" Mean of the whole—Longitude of <i>Light-house</i> of	
<i>Monte Video</i>	W 55. 59. 27"
(It is worth remarking how very near to the Mean of	
the whole, these by the Circle came) therefore	

E

To

(14)

To compleat this View of the various Data for the Longitude of *Monte Video*, I shall add the following comparison of the *Spanish printed Chart* with Capt. *Beaufort*.

	Latitude.	Long. fr. Cadiz + 6°. 17'	Long. fr. Greenw.
<i>Monte Video</i> (il Observatorio)	34°. 54'. 48" S	49°. 57'. 15 W" = 56°. 14'. 15"	
The Light-house, by Particular Plan	1. 13 N	3. 20 W	—
	34. 53. 35 S	50. 0. 35	= 56. 17. 35
By Capt. <i>Beaufort</i> . . .	34. 52. 59½	—	56. 0. 35
Difference . . .	0. 0. 35½	—	0. 17. 0
	—	—	—
<i>Pan de Azucar</i>	34. 48. 5 S	48. 50. 45	55. 7. 45
By Capt. <i>Beaufort's</i> Chart, 34. 49. 20 S	—	—	54. 39. 35
By Capt. B.	0. 1. 15 more S	less W	0. 8. 10

which confirms Capt. *Heywood's* Remark, that the distance from *Monte Video* to *Lobos* is 10' too much in the *Spanish printed Chart*.

.....

N.B. In the foregoing Capt. *Heywood* has reckoned the *Castle* at *Cape Good-Hope* Town in 18°. 32' E, which is by *Mason* and *Dixon* only 18°. 22' E And *James Town*, *St. Helena*, 5. 39 W which being 5. 49 W

difference 24. 11

Which is the same difference of *Longitude* between the *Cape* and *St. Helena* as Capt. *Heywood* gives.

Capt. *Beaufort*, by several *Observations*, agreeing well together, at the Dockyard Flag-Staff, concluded the *Latitude* to be 33°. 54'. 40" S The Mean of 6 Sets *Lunars*, extremes differing 9', *Longitude* 18. 25. 36



OBSERVATIONS

OBSERVATIONS by Dr. GORDON, Physician of the
Army, commanded by General Whitelocke.

Received from the Hon. Capt. Bouvierie.

The *accidents* of the *Field*, the *fatigue* and *hardships* during the *services* before *Monte Video*, and *Buenos Ayres*, together with the *immoderate use* of *ardent spirits*, form the *grand causes* of the *mortality* which appears on the *force* of this *statement*: Very small indeed is the proportion of *deaths* to be ascribed to the *Climate*, for it will be seen by a reference to the *Return of Diseases* that of 396 deaths, 241 have been occasioned by *Wounds alone*. Every *Regiment*, however, underwent a *kind* of *seasoning* to the *vicissitudes of temperature*, and the *particular qualities* of the *atmosphere*, of *South America*, and where *care* was taken by *Commanding Officers* and *Surgeons*, this *seasoning* occasioned the *loss* of *very few men*; but where proper *attention* was *not paid* in the *commencement*, *complaints*, *mild* at *first*, laid the *foundation* of *Chronic diseases*, often proving *fatal*, or rendering the *man unserviceable*. The *Climate*, however, it must be confessed, is *particularly unfavourable* to the *healing* of *wounds* and *sores* of every *description*. *Locked-jaw*, and *Mortification* have been *frequent* among the *Wounded*: and the *smallest scratches* have *often run quickly* into *high inflammation* and *gangrene*, or produced *extensive and dangerous ulceration*: Even *military punishment* has been *frequently* followed by *Mortification*, almost always attended with *Fever*, *injurious* to the *Constitution*; and men's *lives* have been *endangered* in *South America*, by a *degree of punishment*, which in *England*, would be considered *trifling*.

The Doctor adds, that he has had great pleasure in seeing the measure, which he recommended, of having the *Wounded* placed in *Hospital Ships*, attended with
such

such signal success: Experience has proved to the satisfaction of every body, that the *numbers of men*, who have *recovered*, have been greater, than with the *best accommodation* in *Hospitals on shore*. Finally, it is my opinion, that with *good interior economy*, and *sufficiency of Cloathing* adapted to the nature of the Climate, *Garrisons* might be maintained at *Buenos Ayres*, and *Monte Video* with *less annual loss* by *disease*, than in *England*.

General Statement of the numbers of Sick and Wounded of the Forces employed in *South America*, between January and September, 1807.

Average Strength.			Total under Treatment.					Discharged.		Died.		Remaining on the 5th of Sept.							
10,508.			5,531.					4,434.		396.		701.							
	Fevers. Continued	Intermittent	Dysentery.	Diarrhea.	Pulmonic Aff.	Hypatis.	Visceral Obstr.	Rheumatism.	Paralytic.	Jaundice.	Veneral.	Dropay.	Ophthalmia.	Wounds.	Tetanus from Wounds.	Ulcers.	Casualties.	Punished.	Total.
Admitted	599	76	1550	586	87	16	19	148	1	6	82	3	458	1095		218	249	338	5531
Discharged	525	58	1324	567	61	15	15	144	1	4	66	3	264	699		148	228	312	4434
Died . .	35		101		8	1	1				2			198	43	2	5		396
Remaining	39	18	125	19	18		3	4		2	14		194	155		68	16	26	701

It will appear strange to any one, and is a strong confirmation of the *Doctor's* remark about *Hospital Ships*, to find that *one man only*, has died on board this ship [*Medusa*], between September 1806, and September 1807, whose *death* was occasioned by *Mortification* of the *Bowels*. *Dysentery* was *not uncommon* in the *summer months*, and left those that were afflicted with it *very low*. Almost all the *Marines* that were with the army before *Monte Video*, and afterwards employed in the *Hospital Ships* in the *Harbour* were *ill* for ^a or shortly after their return on board. D. P. B.

H. M. Ship

^a Original "for," supposed something wanting. A

1807.
MAY.H. M. Ship *Polyphemus*, Capt. *P. Heywood*.

M. 25th. At 3^h. AM. had Soundings in 75 fath. *black mud*, in Lat. 33°. 4' S, 50°. 36' W, or 4°. 9' E of *Lobos Island**; steaming by Compass SbW.

At 4^h. had 75 fath.

At 4^h. 30^m. had 75 fath. but bottom changed to *light greenish mud*, very little coming up with the *lead*.

At 7^h. had 80 fath. having run 21 miles on that course, or *true SSW*, into 33°. 23' S, 50°. 46' W, or 3°. 59' E of *Lobos*. Soon after deepened to 120, 140, and

At Noon in 33°. 44' S, 50°. 56' W, or 3°. 49' E of *Lobos*, had no bottom. I take this to have been the *SEastern* part of a *Bank* which is not laid down in any of the Charts I have seen of the Coast: and think it probable it may reach quite to the shoar, and begin somewhere about the Mouth of *Rio Grande*, extending to the *Southward* as far as we had *Soundings* upon it, and, farther in, have little water on it, perhaps.

T. 26th. PM. Moderate Breezes from East to SE; steered SSW and sounded frequently during the night, but had no bottom with from 60 to 100 fath. of line.

At

* By Longitude of *Monte Video* 56°. 0' W fr. *Greenwich*, *Lobos* 1°. 20'. 11" E, gives Longitude of *Lobos* 54°. 39'. 49" W fr. *Greenwich*; and 4°. 9' E of *Lobos*, gives 50°. 30'. 49" W, or 5'. 11" more to the Eastward.

At 7^h. 30^m. altered our Course to WSW, and at $\frac{1}{2}$ past 9, in Lat. 35°. 9' S, 52°. 6' W, or 2°. 37' E* of *Lobos*, sounded in 92 fathms. *fine black sandy* bottom, and at

Noon, Lat. 35°. 11' S, 52°. 20' W, or 2°. 25' E of *Lobos*, had 78 fathms. *fine black sandy* bottom, with a mixture of mud.

W. 27th. PM. Light Winds from EbN and clear; steared WbS. At 2 had 68 *greenish sandy* bottom. At 5^h. 50 *dark grey sand*, 17' W of Noon Position [2°. 8' E from *Lobos*], and shoalened gradually from 59, at 6, to 29 at Midnight, the Bottom chiefly *fine dark sand* with *small bits of shells*, but some casts had *red and white* gravel, and others *grey sand* with *small stones*.

I am laying off the various *Soundings*, which, with a *Chart* shewing our *Track* from the *Isle of Wight*, I shall send you copies of.

At 1^h. AM. the Wind drawing round to the Northward, altered Course to West and WbN.

At day-light saw a Sail SEbS, which afterwards proved to be H. M. Sloop *Saracen*, which had been sent on, before the Convoy, to announce their approach, but had been prevented, by *strong Westerly Winds*, from getting into the *River*.

At 7^h. saw *two Frigates* in the NW.

At

* *Lobos* 54°. 39'. 49" W - 2°. 37' E = 52°. 2'. 49" instead of 52°. 6' or 3° 11' less.

2. 25 = 52. 14. 49 . . . 52. 20 . 5. 11
2. 8 52. 31. 49" ②

At 9^h. 40^m. They joined company, being H. M. Ships *Unicorn* and *Medusa*.

At 10^h. AM. In 19 faths. saw the Land about *Cape St. Mary*, bearing NW.

At Noon, in Lat. 35°. 2' S, 0°. 18' E of *Lobos*, had 18 faths. *soft muddy* bottom.

Th. 28th. PM. The Wind unfortunately came round to the *Westward* and *Southward*, with it a strong *NE Current*, of near 3 Knots an hour, as is usually the case at the entrance of the *River Plata*. It came on to blow hard with much sea, which made it quite impracticable to beat the *Transports* up; and as Capt. *Hardyman* and Capt. *Bouverie* seemed to think it more adviseable to come to \leftrightarrow than to keep under weigh, we made the signal to \leftrightarrow at $\frac{1}{2}$ past 3, in 16 $\frac{1}{2}$ faths.

The Island *Lobos* bearing . . . S 61°. W, 11 or 12 miles
and *Cape St. Mary* (supposed) . . . N 3°. 30' E, about 5 or 6 miles off *shoar*.

At 4^h. The Wind began to freshen up, and

At 8^h. blew strong at SWbS; *struck topgallant masts*, and veered to *two Cables*.

At 10^h. The Sea rising much.

At Noon *strong breezes* at SWbS and *clear Sky*.
Observed in Lat. 34°. 58' S, and 54°. 34' W.

PM.

1807.
MAY.

(20)

F. 29th. PM. *Strong breezes* from SWbS and *squally*, with a *heavy Sea*, which made many of the *Transports* drive some miles farther from us.

At Noon *more moderate* and *clear*, a *Current* setting to the NE at the rate of 2½ or 3 Knots. Observed in Lat. 34°. 58'. 20" S, and Long. TK. 54°. 34'. 50" W. The *Wind* continued in the SW Quarter, and sometimes blew very strong, and as the *Current* ran constantly to the *Northward* and *Eastward*, there appeared to be no prospect, with the vile *Pampero*, of gaining any ground by breaking ground with such Vessels as composed our Convoy, here we remained wind-bound; However on

JUNE.

4th. The Weather moderating, and the *Wind* shifting to the *NW*, and the *Current* slacked to less than a *Knot*, therefore

At day-light made the Signal, and

At 9^h. Weighed and stood to the SW on the starboard Tack, and carried from 16 to 8½, 9, 13, and 24 faths.

At Noon,

Lobos bearing W 16°. N, 10 miles,
and *Maldonado* NW

The *Wind* had now backed again to the *Westward*, and was *freshening* up in *Squalls*; *Barometer* 29,77, *Thermometer* 60°.

PM.

1807.

JUNE.

(21)

F. 5th. PM. At $\frac{1}{2}$ past 1^h. wore Ship and Convoy.

At $\frac{1}{2}$ past 4^h. It was somewhat more moderate, but the Weather looked very unsettled; There was *much haze round* and *near the Horizon*.—As it was *New Moon* to-night, and from the *depression* of the *Mercury* in the *Barometer*, there being every appearance of an *Increase of Wind*, and as many of the *Transports* had already lost \leftrightarrow s, the Admiral resolved to keep under weigh, and

At 5^h. Tacked and stood to the *Southward* in 24 fathms.

At $\frac{1}{2}$ past 6^h. It began to *freshen* up in squalls—*close-reefed* the *Topsails* and *furled* the *Mainsail*; and

At 8^h. *Furled* the *foretopsail*, and sent the *Topgallant Masts* down on deck.

At Midnight, in 30 fathms. *fresh Gales* from SW, and a *heavy Sea*.

At day-light all the Convoy was very much dispersed.

At Noon the same Weather. Observed in Latitude 34°. 56' S, and Longitude 53°. 27' W, in 22 fathms. *ouzy ground* with *small black specks*, and had a *Current* the last 24 hours to N 40°. E, 30 miles.

Sat. 6th. PM. *Strong Gales* and *passing Squalls* from SWbS,
and G At

At day-light the Convoy much scattered, the Weather the same.

At Noon, Observed in Latitude $34^{\circ} 47' S.$, and Longitude $52^{\circ} 21' W.$, in 49 fath. water, the Bottom *very fine sand*, nearly approaching to *mud*, *Cape St. Mary* bearing W $4^{\circ} N.$, distant 91 miles. Since last Noon had a Set N $34^{\circ} E$ 18 miles, The *Barometer* rising 30,16, and *Thermometer* 58° .

Sund. 7th. PM. *Much more moderate*, SSW Wind.

At 2^h. *deepened* off the *Bank*, and had 80 fath. line.

At Midnight *Light Winds* from SWbS, 120.

At day-light *little Wind* and *a fine clear sky*; swayed up the Topgallant Masts and crossed the Yards, *Out reefs*, wore and stood down towards the leewardmost Ships in the NW.

At Noon Lat. $35^{\circ} 15' S.$ and Long. TK. $51^{\circ} 45' W.$ These 24 hours had a *Set S* $36^{\circ} W$ 11 miles, promising a *shift of Wind* in our favour, or shewing that the strong NE Current ceases with the *Wind*, or at the *Entrance* of the *Plata* does not extend beyond the *Bank of Soundings*. *Barometer* 30,31, *Thermometer* 59° .

Cape St. Mary, estimated at 125 miles distance, . . . N $74^{\circ} W$

The

The *Wind* continued from the *Westward*, and we made but little progress, till the

F. 12th. When the Wind hauled round to the NW at times.

Sat. 13th. PM. almost *Calm*.

At 3^h. 30^m. finding the *Current* shifted to the SE, ⇨ in 6½ faths. water, in Lat. 35°. 26' S; in Long. 56°. 11' W of *Greenwich*, or 1°. 36'. 12" W of the ⇨ we had on 28th May to the Eastward of *Lobos*.

PM. Light Winds and foggy.

At 8^h. PM. the Wind came round to the SE, and

Sund. 14th. At day-light, being at ESE, made the Signal and weighed.

At 7^h. 50^m. The *Nereide* was ordered to lead, and as soon as She got sight of the Ships in *Monte Video* Road, to direct the *Convoy* to make the best of their way there, and ⇨. The *Flying-Fish* Schooner was sent to keep, and sound, ahead of the *Polypheus*, at a distance not exceeding 2 miles.

We steered *North* from the ⇨ about 9 miles, and shoaled from 6½ to 4 faths. then hauled up NbE, and after a few more casts of 4 faths. began to deepen our *Water again*, having been for some time rather nearer the

the *ground* than the *sky*, having many casts of 4 fath. and the Ship drawing 23 feet 8 inches. These *Shoal Soundings* I supposed at the time were on the *Westernmost** part of the *Flat* which extends to the ESE from the tail of the *Ortiz Bank*, but on our arrival at *Monte Video* I found that we had just cleared the NW part of a *Shoal* on which the *Diomede* had been *aground*, but of the Discovery and Existence of which we had not received any information, nor was it laid down in the *Spanish Chart* I had. This *River* on the whole is *dangerous*, and not calculated for Ships of this Class to be groping about in, blindfold.

At 10^{h.} 40^{m.} Saw *Monte Video* bearing NNW, and

At Noon, It bore NWbN, as did the *Ships* at $\frac{1}{2}$ \rightarrow , distant 9 or 10 miles ; the depth of water was 6 fath.

M. 15. Afternoon, a *fresh Breeze* from EbS, and *thick rainy weather*.

At $\frac{1}{2}$ past 1^{h.} $\frac{1}{2}$ \rightarrow with the small Bower in 6 fath. *soft muddy* bottom, and moored Ship with the B. B. to the *Westward*.

In the Morning took Sights for the *Chronometers*, and made *Long.* by 208 56° 26' 30" W
and by 45 55. 57. 45 W
The Mean of both being . 56. 12. 7 W
 $\frac{\Phi}{\Phi}$ Rates

* Westernmost should be Easternmost. $\frac{\Phi}{\Phi}$

1807.
JUNE.

(25)

¶ Rates from *St. Helena* (Both These *Arnold's*) ; The other two, N° 4260 and N° 3, had been very materially affected by *Change of Temperature* from the day we made *Trinidadada*, and both had altered their rates considerably.

The *Look-out-House* on *Monte Video* bore N 24°.30' W when moored.

A few *Dangers* have already been discovered by some of our Ships, but they have been carelessly laid down by runs ¶ Log (and hand-bearings taken to $\frac{1}{2}$ or $\frac{1}{4}$ Points) on some *Charts* of *Faden*, and others I have been shewn here. *This Mode is incorrect enough any where*, but in a place like *Rio de la Plata*, where there are *no regular Tides*, to make allowance for, but *Currents* the *most uncertain and irregular* I ever met with, both as to their *time, rate, and direction, of setting*, one might as well have *nothing* to point the *situation of a Danger*.

AUGUST.

M. 10th. Notwithstanding that Circumstances and Events the *most unexpected*, had taken place at *Buenos Ayres*, and compelled the *Military Chief* to promise to evacuate *Monte Video* by 7th September, and to *withdraw* all the *English Troops* from *South America*, seemed to render a more perfect knowledge of the *dangers* in the *River Plata* of less material consequence than it would have been otherwise, yet nevertheless, thinking it may be useful at a future day, and as *some* of the *smaller vessels* of the *Squadron*, about this time, were not particularly

H

wanted,

wanted, I took the opportunity of suggesting to the *Commander in Chief* the propriety of employing *one* of them, for a few days, in examining the *true situations* and extent of the *English Bank*, and *That* to the *West-ward of It* on which the *Spanish Ship Archimedes*, and *Diomedes*, had *struck*, and, if possible, to fix the true position of the *Panela Rock*.

As Captain *Beaufort*, of His Majesty's Ship *Woolwich*, was very fortunately here at the time, with his *usual* and *unremitting zeal* to promote the *Public Good*, and benefit *Navigation*, had offered to go on this Service, and being from his *thorough Scientific Knowledge* of his *profession*, *more competent* than *any* Officer in the *River*, to *perform* such Service with correctness and dispatch, I mentioned his offer to The Admiral, who consented to allow him to have the *Protector* Gun-brig for the purpose.

Capt. *Beaufort* will, no doubt, as soon as possible, make known the *Result* of his *Observations*, therefore I shall say nothing more but to express my regret, that his exertions were so circumscribed by *time*, which, with the unfavourable state of the Weather, prevented him from examining *more than a part of those Banks*. The *true place* of the *Panela Rock* is *yet*, I am sorry to say, *unknown*, though *more than one of His Majesty's Ships* has *struck upon it?* and *one Transport* been *wrecked!!*

29th. I accompanied Capt. *Beaufort* to-day up to *Monte Video*,

1807.

AUGUST.

(27)

Video, to observe Latitude and Longitude. Capt. B. made its Lat. $34^{\circ} 53' 5''$ S, I observed in $34^{\circ} 53' 12''$ S; we had also some distances of *or*, which gave, by Capt. B. Long. $55^{\circ} 48' 15''$ W, mine $55^{\circ} 49' 15''$.

On the Summit of this *Mount* is a *Building*, whose *Base* is 42 feet 6 inches by 20 feet, formerly used (as I believe) for a *Light-House*; The diameter of the *Lantern* is 10 feet 6 inches, and Its *Elevation* above the *level* of the *Sea* 451 feet: From this *Building* we took some *Angles*, and had a very extensive view of the most prominent features of the *Country*, which is *level* as a *Bowling-Green* as far as the *Eye* reached. At the foot of the *Mount* are several runs of excellent *water*, particularly in *two small sandy Bays* on the *South part of It*, in one of which, nearest the *Harbour*, we used to fill at with *our own Boats*, in preference to sending *Casks* by the *Transport* up the *River*, who sometimes brought us down very brackish *Water*, filled at an improper time and place. The *Casks* at these *Watering-Places* must be landed and filled, and hoisted in with a *Triangle* or *Derrick*.

SEPTEMBER.

M. 14th. PM. Light Westerly Winds. At $\frac{1}{2}$ past 1 weighed, and made sail down the *River Plata*. H. M. Ships *Africa*, *Medusa*, and *Daphne*, *Fly Sloop*, *Steady*, *Protector*, and *Encounter* Gun-Brigs, besides 51 Transports and 24 Merchant Vessels under Convoy. Steered E $\frac{1}{2}$ S. to E $\frac{1}{2}$ N, increasing our depth of *Water* from 5 to $6\frac{1}{2}$ fathoms at 12 o'clock, when the *Island* of *Flores* bore
North

North 3 or 4 miles. After Midnight, steered EbN, and carried regular increasing Soundings 6 $\frac{1}{2}$ to 14 $\frac{1}{2}$, At 8^h. 57^m. AM. when the South Point of the Island of *Lobos* bore E 39°. 30' N, 5 or 6 miles, and the *Two Chronometers* made 1°. 13'. 53" E Longitude from *Monte Video*, placing *Lobos* 1°. 20'. 11" E of It, which is 10'. 4" less than the *Spanish Chart* has it. At Noon Lat. 0 35°. 5' 40" S,

Lobos bearing W 3°. N
and The *Easternmost Land* seen off Deck . N 12. E

the Ship in 15 fathoms.

During our stay in the *River Plata*, circumstances obliged me to be much on board the Ship, and prevented me from obtaining much knowledge of the *Dangers* which are laid down in the *Spanish Chart*, and of others, said to have been since discovered by some of our own Ships; and had not Captain *Beaufort* arrived, we should still have been unacquainted with the *real situation* of the *Archimedes Bank*, on which the *Diomede* struck, and of the *North part* of the *English Bank*, where the *Leda* grounded, and till he examined it, was supposed to be a *Bank detached from It*.

According to Capt. *Beaufort*, the *Archimedes Bank* is nearly *three* miles in extent, on an EbS and opposite direction, and with a *high River* has S $\frac{1}{2}$ fathoms water on it; Its *centre* is in Lat. S5°. 12'. 17" South, and bears from *Monte Video* S 21°. 48' E by the *World*.

The

The *Walker*, a *Transport* which was wrecked on the *English Bank*, is in Lat. $35^{\circ} 15' 33''$ S, and the *Bank* round her is *nearly dry* at *low River*. There is from $1\frac{1}{2}$ to $3\frac{1}{2}$ fathoms as far as 5' to the *Northward* of the *Wreck*, and $\frac{1}{4}$ of a *mile* to the *Westward* of It, there is $4\frac{1}{2}$ and 5 fathoms. The *Wreck* bears from the *Mount* S 36° E, distant 26 or 27 miles.

From all I could learn, the *Soundings laid down* in the *Spanish Chart* are not very incorrect; I speak, however, from the information of those who had estimated their Ship's place by *Log only*, and which must ever be a means liable to much error, more particularly in a *River* like the *Plata*, where there are *no regular Tides* to allow for, *Currents* uncertain, both as to their *Set* and *Duration*, and *variable* as the *Winds*.—Neither are the *Soundings a sure guide*, because the *Rise* and *Fall* of the *River* are equally as irregular. On these *Accounts* it is by no means an easy matter to know so *exactly* a Ship's place, as *should be*, to *lay down Soundings* for the *guidance of others*, without the aid of *Chronometers* or other requisite means and *Observations*. I met with few Persons who had measured the *Meridian Distances* of *Places* in the *River*, but I saw *several Charts* which I understood were *intended* to be *improvements* on the *Spanish one*. Its *Longitude* seemed to have been *adopted* in them *all*, and on a careful examination, in every thing else they appeared to be *bad copies of it*: with the addition of some *Ships' Tracks*

laid down by log run only, as I was informed and believe.

Whilst we laid at \leftrightarrow off *Monte Video*, The *Water* I believe never *rose* or *fell more* than 5 feet 6 inches, under any Circumstances; though I did hear many marvellous stories of its *rising* and *falling fathoms*, in an *incredibly* short space of time.—It is very true that the *River Plata* has many singularities, and I believe they are *peculiar to it*, but which I think may in great measure be accounted for, from its formation being very different from that of *any other known River* in the Universe. Its *Mouth* being *much wider*, and *shallower*, It is affected by every shift of wind in a very extraordinary manner: so much so, that a *change of wind* may be predicted almost to a certainty by observing very closely the State of the *Mercury* in the *Barometer*, and the *Set* of the *Currents* as they usually *shift before the Wind*.—In *calm weather* the *Currents* were generally *very weak*, though *almost as regular as Tides*, and *ran up and down the River alternately*.—When the *Wind* was *very variable*, the *Currents* were *equally so*, and I have known the Ship to be *current-rode four different ways* in less than 6 hours.—When the Current came in from the *Eastward* along the *North Bank* of the *River*, a *NEasterly Wind* might generally be *expected*, and the *Mercury* at the same time would *fall a little*, if the *Wind had previously been to the SE*, but much *more* if the *transition* was *quick from SW without stopping in*

in the *SE* *Eastern Board*. While the Wind continued in the NE Quarter, the *Mercury* was more depressed, speaking comparatively as to its strength, than with any other, and there was *usually* a *Set into the River on that Side*. Indeed whilst the Wind was between NNE and SSE, The *Current* generally ran up to the *Westward*, but did *not rise* the River along its *North Bank*. The Winds between NNE and NW made the River *lowest*; notwithstanding that the *outset* along the North Bank was under those circumstances *very inconsiderable*. Before the setting in of a SWesterly Gale the *Mercury* would fall considerably, but sometimes begin to rise again just *before* the Gale commenced, and *generally mounted* as the Wind *increased*. Before these Winds set in, the Current too always began to run out to the Eastward; and when the Wind was most violent from WSW to South, the Outset was strongest and most constant, and the River much higher than at any other time: seeming to prove that *those* Winds drove in round *Cape St. Anthony* and *Memoria Point* a very large accumulated body of water from the Southward, and which could only find its way out to sea again along the North Bank of the River; and I have no doubt but that when the NE Winds prevailed, and we experienced a current *up* the River *past Monte Video*, there would have been found as strong an *Outset* on the *opposite* side, to the Southward and Eastward.— On these Accounts I should think it best for a ship bound up the *River Plata* to make *Cape St. Mary*, *if* the Wind should be any where between NNE and SSE,

SSE, because it *may* be *expected* to shift (if it does at all it most probably will) round by *North* to the *Westward*, but perhaps not before *that Wind*, and the *inset together*, would in all likelihood take her up to *Monte Video*.— On the contrary, if the Wind should be to the *Westward* of *North* at the time of making the Land, it may pretty confidently be expected to *shift next* to *West* and *SW*, therefore a Ship should not strive to beat up round *Cape St. Mary* and *Lobos*, past *Maldonado*, and along the *Northern Shoar*, but stand at once over towards *Cape St. Anthony*, where she would most probably find by the time she could stretch across, a *weather shoar* and a *NW Set of Current*, and a *SSW Wind* to run up with between the *Ortiz* and *Chica Banks*; or over to *Monte Video*, passing to the *Westward* of the *Archimedes Bank* in not less than 5 or $5\frac{1}{2}$ fathoms water.

I am inclined to think, that the strong *NEasterly Currents* which are to be met with in *Soundings* off the *River's Mouth*, when the Wind is about to blow, or blowing from the *S Westward*, do not extend much, if at all, beyond the *Bank of Soundings*. From *Cape St. Mary* this *Bank* lyes off about 95 or 100 miles, and from 92 fathoms fine *dark sandy* bottom on the edge of it, and nearly in the Parallel of the *Island Lobos*, the *Soundings* gradually, though *not regularly*, decrease over a bottom of various quality to 17 and 15 fathoms within 5 or 6 miles of it. Down to the *Southward* the Water is *much deeper*, and between the Parallels 56° . and 57° . S, and

on

on, or near about, the *Meridian of Lobos*, there are from 16 to 45 fathoms, and the bottom is generally *dark sand* like *beaten pepper*.

From the Accounts I had heard, I was led to expect we should have had *very heavy rains, frequent fogs, and violent SW Winds*, as the time of our arrival in the *River* was the *Beginning* of their *Winter*, but we had *no very heavy rains*.—We had but *Showers*, now and then, of short duration, the Weather was *seldom foggy*, and we rode out the heaviest *Pampero* we experienced with only half a Cable more than usual on the Weather \leftrightarrow , the Yards braced by, and the Top-masts an end.—It was however said to be considered by the *Spaniards* as a *Winter* much more remarkable for its mildness than any they had known for many years.

There is a peculiarity in the *Air* of this part of *South America* which retards putrefaction.—It absorbs the Moisture of the innumerable dead *Carcasses* which lye on the ground in all directions, so that (while it does not rain) without acquiring so offensive a smell as elsewhere, they dry up and *wither away*. Yet notwithstanding this *Purity* of the *Air*, there is, perhaps, no part of the World, where *flesh wounds* (however slight) are more dangerous and fatal to Mankind ; and where the *locked-jaw* is so frequently the occasion of *death* : This, however, I should be inclined to attribute rather to the *State* of the *Blood* of Patients in this Country, than to

any atmospheric Cause, owing to the great quantity of Animal Food they eat.^a

The *Climate* on the whole, during the short period I had opportunity to judge of it, may be called a *good one*, for *Persons of good sound Constitutions*, but for *People of delicate Habits*, the *Changes of Temperature* are rather too frequent and sudden sometimes, though the *Thermometer* never fell *below 48°*. nor rose *above 64°*. And the *Mean Height of Mercury* was *55°*. or *56°*. yet it sometimes changed very quickly, when the Wind *shifted suddenly* from the Northward round to SW.

^a Capt. Patrick tells me they eat no Vegetables of any kind. *Ad*

Winds

*Winds and Weather at Buenos-Ayres in 1805,*by *Don Pedro Antonio Cerviño,*

from 18th January to 31st December.

Buenos-Ayres, Latitude $34^{\circ} 36' 43''$ S, Longitude $52^{\circ} 5' 22''$ West from Royal Observatory of the Island *Leon* = $58^{\circ} 22' 7''$ West of Greenwich, is $\frac{\text{toises.}}{10.} \frac{\text{feet.}}{5.}$ above the usual Level of *Rio de la Plata*; It is built on a *Plain* which extends more than 200 leagues; *Winds* are frequent, and, perhaps, there are not 8 days of absolute *Calm* in the whole Year; the SW, NW and SE blow strong: The SW brings *fine Weather*; but the NW and SE are tempestuous: with the NW comes *Thunder* and *some Lightning* (algunos Rayos). There being *no Wood* nor *Hills*, The Country lyes entirely open to all Weather.

This Year 1805 was remarkable for an uncommon *Ebb* of the *River*; The *Waters* of which retired to a great distance from the *Banks* on 2d June, Wind NW; (This had happened some years before); It also occurred in the Month of September, 1806, when the *Sand* was left *dry* for 1 $\frac{1}{2}$ or 2 miles.

On the 5th and 6th June, 1805, was a *terrible Storm*, and the *Wind* blew so strong from the SE, that It caused an extraordinary *Rise* of the *River*; many *Houses* were destroyed by it, and more than 30 Vessels were driven on *shoar*, many as far up as 1500 yards.

The Damage done (by the *Storm* of 6th June, 1805, the *Fury* of which was during 5 Hours of the 6th) in this *Port* and at *that of Conchas* is calculated at about 800,000 Dollars.

Storms are not unfrequent in this Climate.

	Clear	Cloudy	Rainy	on what days	Thunder	on what days	& Lightning	on what days	Winds . . and number of days.							Prev W ^u
									North	NE	East	SE	South	SW	West	
January	8	5	3	18, 29, 30 . .	2 days	18, 30,		1 . 2½ . 5 . 1 . 4½	S							
Feby.	13	15	4	3, 9, 23, 24 . .	1 .	9	4 . 3 . 9 . 4½ . 4 . 3½	I								
March	12	19	10	{ 1, 8, 13, 14, 19, } { 22, 23, 25, 28, } 29	4* .	{ 3, 8, 13, 14, } { 23 } 6½ . 3½ . 13½ . 4 3½									E	
April	9	21	5	7, 11, 17, 21, 22	2 .	21, 22 . . . 13 .	1 . 6 . 2 . 2 . 3 . 1½ . 1½ . 1									
May	10	21	7	{ 3, 4, 12, 13, 20, } 29, 30				12 . 2 . 2 . 1½ . 1 . 9½ . 2 . 1 . 1								
June	13	17	10	{ 3, 4, 5, 6, 7, 8, } { 20, 21, 23, 24 }	3 .	20, 21, 24 .	9½ . 2 . 2½ . 4½ . 1½ . 4 . 2 . 4 .									
July	8	23	10	{ 1, 2, 3, 4, 6, 7, } { 10, 23, 29, 31 }	1 .	1	11½ . 1½ . 6 . 2½ . 2½ . 7									
August	12	19	7	{ 1, 2, 9, 15, 19, } 28, 29				9½ . 2 . 5 . 1 9½ . 1½ . 3 .								
Septem.	10	20	9	{ 3, 4, 5, 15, 16, } { 17, 23, 24, 28 }	3 .	{ 4, 23, 24; } 24 th haled AM.	7 . 5½ . 2½ . 3 . 5 . 4 . 1									
October	7	24	13	{ 9, 11, 14, 16, 17, } { 18, 19, 22, 23, } 27, 28, 29, 30	3 .	11, 16, 17 .	7 . 4 . 8 . 7 . 2 . 3 1									
Novemb.	2	28	9	{ 4, 8, 10, 11, 21, } { 25, 27, 28, 30 }	2 .	11, 20 . . .	6½ 9 . 7 . 1 . 4 , 1½ . 1 .									
Decem.	12	19	^b 11	{ 9, 10, 11, 12, 21, } { 22, 24, 28, 30, } 31	2 .	16, 19 . . .	5½ . 4 . 3½ . 6½ . 2 . 6½ . 1 . 2½ . S									
	<u>114</u>	<u>231</u>	<u>98</u>		<u>23</u>	Recapitulation	<u>92</u>	<u>29½</u>	<u>69½</u>	<u>50⁴</u>	<u>22</u>	<u>62</u>	<u>10</u>	<u>13</u>		

^a So in the Original, but by the dates, it should be 5. } D

^b D^o. . . . d^o. . . . d^o. . . . 10. } D

* D^o. but by particulars should be 116.

⁴ By particulars, only 48; but to make out 365 days for the year, it is 50. D

FINIS.





